

**Amendments to the Claims:**

Please cancel claim 31 without prejudice or disclaimer of the subject matter contained therein and amend the claims as follows.

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1 - 27 (canceled)

28. (currently amended) A pattern inspection apparatus comprising:

an image detecting part for detecting a digital image of an object substrate;

a display having a screen on which the digital image of the object substrate is displayable;

an input device for inputting information of a non-inspection region to be masked on the object substrate for display on the screen;

a memory part for storing coordinate data, pattern data or feature quantity data of a the non-inspection region to be masked on the object substrate on which a pattern is formed; and

a defect judging part in which the digital image detected by the image detecting part is examined in a state that a region matching with a condition stored in the memory part is masked and detecting a defect; and

a display having a screen on which wherein a an actual digital image of the detected defect is displayed together with positional information of the detected defect in a map form on the screen of the display.

29. (currently amended) A pattern inspection apparatus comprising:

Image detecting means for ~~attaining~~obtaining a digital image of an object substrate on which a pattern is formed through microscopic observation thereof;  
a display having a screen on which the digital image of the object substrate is displayable;

an input device for inputting information of a pre-registered region or pre-registered pattern to be masked on the object substrate for display on the screen;

defect detecting means for detecting defects of the pattern formed on said object substrate by comparing the digital image attained by the image detecting means with a reference image while masking ~~a~~the pre-registered region or a pattern matching with ~~a~~the pre-registered pattern; and

output means for outputting data regarding the defects detected by the defect detecting means including digital images of said defects detected by masking and the positional distribution data thereof in a map form;

wherein an actual digital image of the detected defect is displayed together with positional information of the detected defect in a map form on the screen of the display.

30. (currently amended) A pattern inspection apparatus as claimed in Claim 29,

wherein the pre-registered region or pre-registered pattern is set up using the digital image ~~attached~~obtained by the image detecting means through microscopic observation of the object substrate by the input device.

Claim 31. (canceled)

32. (currently amended) A pattern inspection apparatus comprising:

image pickup means for ~~attaining~~obtaining a digital image of an object substrate on which a pattern is formed through microscopic observation thereof;

display means having an input device for pre-registering a feature not to be extracted as a defect for display on a screen of the display means;

candidate defect detecting means for detecting candidate defects by processing the digital image ~~attained~~obtained by the image pickup means; and

defect extracting means for extracting defects from the candidate defects detected by the candidate defect detecting means; and

wherein said display means for displaying~~displays a-an actual~~ digital image of said defect extracted from said candidate defects together with positional information of said extracted defect in a map form on a-the display screen; and

wherein the defect extracting means extracts defects from candidate defects while excluding defects having a feature that matches with a-the feature pre-registered in the defect extracting means by the input device.

33. (currently amended) A pattern inspection apparatus as claimed in claim 32,

wherein the feature pre-registered in the defect extracting means is a feature which has been set up using the digital image ~~attained~~obtained through microscopic observation of the object substrate by the input device.

34. (currently amended) A pattern inspection apparatus comprising:

image pickup means for ~~attaining~~obtaining a digital image of an object substrate on which a pattern is formed through microscopic observation thereof;

inputting means for inputting information of a pre-registered region, pre-registered configuration or pre-registered feature quantity data for display on a screen of a display means;

candidate defect detecting means for detecting candidate defects in examination of the digital image ~~attained~~ obtained by the image pickup means; and

defect extracting means for extracting defects from the candidate defects detected by the candidate defect detecting means; and

wherein the display means for displaying displays a-an actual digital image of said defect extracted from said candidate defects together with positional information of said extracted defect in a map form on a the display screen;

wherein the defect extracting means extract defects together with positional data and image data from the candidate defects excluding data regarding candidate defects ~~located~~ located in a the pre-registered region, having a pattern that matches with a the pre-registered configuration or having a pattern that matches with the pre-registered feature quantity data, or the defect extracting means extract defects together with positional data and image data from the candidate defects in a distinguishable form without excluding data regarding candidate defects located in the pre-registered region, having a pattern that matches with the pre-registered configuration or having a pattern that matches with the pre-registered feature quantity data.

35. (currently amended) A pattern inspection apparatus as claimed in claim 34,

wherein at least one of the pre-registered region, pre-registered configuration and pre-registered feature quantity data is a factor which has been set up using the

digital image ~~attained~~ obtained through microscopic observation of the object substrate by the inputting means.

36. (previously presented) A pattern inspection apparatus as claimed in claim 34, wherein feature quantity data of each defect contains at least one kind of data including defect position data, projection length data, area data, and shape data.

37. (currently amended) A pattern inspection apparatus comprising:

image pickup means for attaining a digital image of an object substrate through microscopic observation thereof;

inputting means for inputting information of a predefined region, a pre-registered configuration or feature quantity data for display on a screen of a display means;

candidate defect detecting means for detecting candidate defects by processing the digital image attained by the image pickup means;

defect extracting means for extracting defects from the candidate defects detected by the candidate defect detecting means while excluding candidate defects ~~locating~~ located in a predefined region on the object substrate or having a pattern that matches with a pre-registered pattern and for calculating feature quantity data of the defects thus extracted;

wherein the display means for displaying displays an actual image of a defect among the defects extracted by the defect extracting means on a-the display screen together with a location data thereof on the object substrate in a map form and the feature quantity data thereof;

defect classifying means for classifying the extracted defects by using the feature quantity data; and

output means for outputting class data of each of the defects classified by the defect classifying means together with the feature quantity data thereof.

38. (previously presented) A pattern inspection apparatus as claimed in claim 37,

wherein the display means displays the class data of each of the classified defects on the display screen together with ~~an~~ the actual image thereof.